Automotive Repair Checklists

Section 2

The following checklists and reference information can be used to identify, review, and determine appropriate pollution prevention options. Each question is accompanied by a short description and is then referenced to the Code's Reference Manual where applicable.

It is recommended that, if you do specific auto repairs:

1. **Begin by completing the checklist for that repair first.**
2. **From the checklist you will begin to see the options, and the concerns that exist about each type of auto repair.**
3. **After completing the checklist you can then refer to or request Reference Manual material for more detailed direction.**

To simplify the process use the following checklist to detail your shop's type of repairs. From this list you can then easily refer to **Reference Manual**.

❑ Repair Operations			
Do You?	**Yes ✔**	**No ✔**	**See Page ? In Reference Manual**
Repair Brakes			**13**
Generate Empty Aerosol Cans			**17**
Use Solvents			**22**
Wash Vehicles			**36**
Use An Oil Water/Separator and/or a Sandtrap			**43**
Recycle Used Oil			**51-55**
Collect & Drain Oil Filters			**55-58**
Produce "Waste Fuel"			**61**
Generate Waste Antifreeze			**63**
Take Used Tires			**79**
Store or Sell Batteries			**78**
Use Shop Towels			**106**
Do Paint & Body Work			**87**
Contain Spills & Train Employees to Handle Spills Properly			**98**
Generate Hazardous Waste			**104**
Repair Radiators			**81**

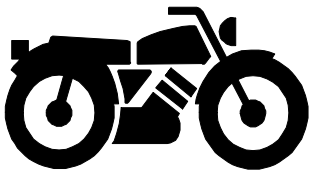
❑ Brake Repairs			
1.	Do you use a CFC containing brake fluid? Yes No	CFC's, or Chloroflorocarbons are known atmospheric ozone depleters and are stringently regulated. Non-CFC sprays are currently available.	Check with suppliers for product availability. Listing of vendors is located at the back of the Reference Manual
2.	Do you use brake pads that contain asbestos? Yes No	Asbestos is a known carcinogen. Asbestos exposure may occur during replacement of clutch plates, brake pads, shoes, etc.	Non-asbestos brake pads are available. Check with suppliers for product availability.
3.	Do you know how to control dust from asbestos containing brakes? Yes No	Controlling dust from brake removal will protect you and your employees' health.	**Methods have been mandated by OSHA (29 CFR 1910.1001**), **that are designed to reduce mechanics' exposure to asbestos**. See page 13-16 Reference Manual.
4.	Does your shop use brake pads that contain copper? Yes No	Disk brake pads contain varying amounts of copper. If the brake pads are not recycled or disposed of properly, the copper could end up in the storm or sanitary sewers and eventually in the Rio Grande.	There are brake pads that contain smaller concentrations of copper. Check with suppliers for product availability. See Reference Manual pg 16
5.	Does your shop use aerosol cans? Yes No	Did you know that if aerosol cans contained a hazardous substance they must be handled properly.	Find out how one company switched to reusable cans, and a less hazardous cleaner. The company saved money and reduced waste! See page 17 in the Reference Manual

❑ Solvents			
1.	Does your shop use halogenated solvents? Yes No	Air regulations were finalized by the U.S. EPA in December 1994 concerning halogenated solvents. The new standards will require emission controls.	See Reference Manual pg 22
2.	Does your shop use a parts washer or solvent sink? Yes No	A solvent sink or parts washer cleans parts more effectively and may reduce solvent use.	See Reference Manual Chapter 4, pg 28-29
3.	Does your shop pour solvents down the drain? Yes No	Solvents should **never** be poured into a storm sewer or the sanitary sewer. Many solvents are hazardous and could cause an explosion.	
4.	Does your shop maximize solvents and cleaners? Yes No	Do you change your solvent when you **think** it's dirty, or when it really is dirty? ● Maximize recycling and reuse of cleaners, don't change your solution just because you think it's dirty. ● Check your solution by using a test kit or clear hose.	See Reference Manual Chapter 4, pg 28

❑ Washing Vehicles			
1.	Does your shop discharge wastewater from washing vehicles to the storm or sanitary sewer? Yes No	Wastewater from washing vehicles may contain heavy metals or toxic chemicals that may harm the wastewater treatment plant.	See page Chapter 5, in the Reference Manual pg. 36
2.	Is your wash area sloped ? Yes No	If possible, designate a vehicle washing area and collect the wastewater for pretreatment.	See page 37
3.	Do you use brushes and scrapers to remove heavy deposits? Yes No	Using brushes and scrapers will reduce your water use, and prevent “fugitive water”.	Fugitive water is any water other than rain or snowmelt, that is allowed to flow into streets, storm drains, arroyos or neighboring property. Creating fugitive water violates City ordinance and may result in fee assessments to your city service bill. Call 768-3650 if you have any questions about fugitive water.
4.	Does your shop use products that contain phosphates? Yes No	Phosphates can cause problems at the wastewater treatment plant, because they promote algae growth which depletes the oxygen in surface waters and may end up killing fish.	See Chapter 5, page 37 in the Reference manual.

❑ Oil/Water Separators& Sandtraps			
1.	Does your shop use an oil/water separator? Yes No	Using an oil/water separator, in many cases, allows a business to reclaim and reuse a percentage of their wastewater.	The **City of Albuquerque's Sewer Use & Wastewater Control Ordinance** limit for Petroleum is **100 mg/l** The limit for BTEX (Benzene, Toluene, Ethyl benzene and Xylene) is .**75 mg/l.** See Chapter 6, 43-48 in the Reference Manual for more information.
2.	Does your shop maintain their oil/water separator properly? Yes No	Each different type of oil/water separator requires different maintenance. Oil/Water separators only work when maintained properly. 	Chapter 6, Reference Manual Pgs. 45- 48
3.	Do employees know what types of waste a oil/water separator is designed to handle? Yes No	Do your employees know that solvents, antifreeze, and other car care products are not supposed to be discharged to the oil/water separator? If care is not taken, you could end up with a "soup" of heavy metals and toxic chemicals.	See Reference Manual Chapter 6, pg. 47 for more information about different types of oil/water separators and what you should consider before installing an oil/water separator.
4.	Do you have a sandtrap? Yes No	Do you pump and clean out sludges on a regular basis.	Sandtraps that are not maintained properly do not work properly. See Chapter 6, pg.48.

❑ Used Oil Wastes			
1.	Does your shop recycle used oil? Yes No	There are 3 options for used motor oil: Recycling or Refining Burning for Energy Recovery or Product Manufacturing	See Reference Manual Chapter 7, pg 51
2.	Does your shop recycle oil filters? Yes No	Presently the state of New Mexico does not require that oil filters be recycled, however oil filters might be contaminated with toxic metals.	Reference Manual Chapter 7, pg 55
4.	If you service a fleet of vehicles, have you considered using reusable oil filters? Yes No	Reusable & by-pass filters are becoming a proven technology, that may help you reduce costs.	Chapter 7, Reference Manual page 57 for more information.
4.	Are your employees careful about not spilling fuel on the ground or floor? Yes No	Fuels contain heavy metals. Heavy metals are not easily removed by the wastewater treatment plant.	Reference Manual Chapter 7, page 61



Zoom, To Waste Minimization Opportunities!

❑ Spent Antifreeze			
1.	Does your shop pour used antifreeze down the drain? Yes No	Studies have shown high levels of copper and lead in antifreeze. Lead is highly toxic.	See Reference Manual Chapter 8, pg 63.
2.	Does your shop recycle antifreeze? Yes No	There are several options for recycling antifreeze.	See Reference Manual Chapter 8, pgs. 68-73
3.	Do employees know how to handle used antifreeze? Yes No		Reference Manual Chapter 8, pg. 70-73
4.	Have you considered purchasing a recycling system? Yes No	Depending on the volume of cars that you service, purchasing a coolant recycling system could save you money.	Chapter 8, pg. 68

❑ Used Batteries & Tires			
1.	Does your shop store batteries in a secure covered area? Yes No	Car batteries should be stored in a covered area to avoid ground water contamination.	
2.	Do your employees know how to handle spills if a battery is dropped? Yes No	Employees should be trained to properly handle all types of spills that may occur.	Reference Manual Chapter 9, pg 78
3.	Do your employees use protective eye or face gear when handling batteries? Yes No	OSHA requires employees to use face or eye protection when exposed to eye or face hazards from acids or caustic liquids.	See Appendix E for more information about Personal Protective Equipment.
4.	Do you store waste tires at your facility? Yes No	New Mexico regulations prohibit you from storing more than 500 tires on site.	See Reference Manual Chapter 9, pg 80 for more details.

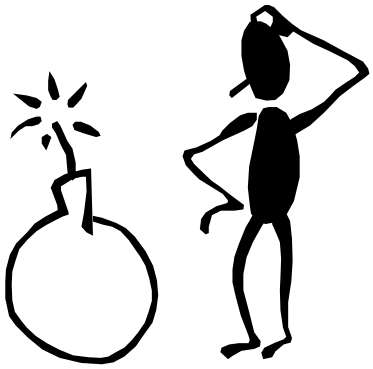
❑ Radiators			
1.	Does your shop recycle rinse water from radiator repair? Yes No	Reusing rinse water could save your shop money .	Chapter 10, page 81
2.	Does your shop check technicians blood level for lead poisoning? Yes No	There have been documented cases of radiator repair technicians getting lead poisoning.	Chapter 10, pg. 85
3.	Does your shop treat wastewater? Yes No	Treat rinse wastewater only to meet reuse quality requirements, as opposed to more stringent discharge standards. How do you handle the sludge generated from treating wastewater?	Sludge Management Methods: ► Use air or low heat to speed up evaporation of water ► Use a paper cloth filter placed in a holder on a drum allowing the liquid to collect in the drum. Dry the sludge and reuse the water. See pg 84 for more information.
4.	Do you know who to call if you have questions? Yes No	The City and State have many free resources available. For questions about wastewater call the p2 Program at 873-7004.	**CoolProfits Magazine,** a *Radiator & Air Conditioning Service* has a website for questions, see pg. 86 for the address.

❑ Auto Paint & Body Work			
1.	Do you use good inventory control methods to reduce paint & thinner wastes? Yes No	Monitoring paint and thinner use could save you money.	Chapter 11, Reference Manual pg. 87
2.	Do you use two stage solvent cup cleaning? Yes No	Using two stage solvent cup cleaning reduces solvent use.	Reference Manual Chapter 11 pg. 92
3.	Do you know anything about high volume low pressure(HVLP) paint guns Yes No	HVLP can increase transfer efficiency which translates to a reduction in paint costs.	See Chapter 11, Reference Manual pgs 94-97. Find out how a company in Colorado successfully used HVLP guns to reduce wastes and save money!
4.	Does your clear coat contain lead? Yes No	Lead can be toxic to you, your employees, and your family.	New Mexico Offers free testing you can call the State's Lead Poison Prevention Office for this free service at 827-3709.

Hazardous Materials Emergency Response Plan (HMERP)

Section 3

It is required that any business handling materials which are or may be considered hazardous to have a Hazardous Materials Emergency Response Plan (HMERP) in case of spills. If a business is unable to contain a spill and it is discharged into the sanitary sewer or storm drain, released into the air, or spilled on the ground it is very important to notify the proper authorities. Spill control is especially important for automotive repair shops because many of the chemicals used are toxic or contain high concentrations of heavy metals**.**



Don’t waste time, prepare a HMREP.

❑ Spills			
1.	Are your employees careful about spilling car products onto floors and identifying leaks and spills? Yes No	Routine inspections of your shop's bays, storage and waste treatment areas should be conducted to identify leaks and spills. Identifying problems at an early stage helps reduce spills and other uncontrolled releases.	
2.	Does your business have a **written** Spill Control Plan? Yes No	By preparing and filing a HMERP (with the Fire Department), you will be fulfilling part of the requirements under RCRA (Resource Recovery and Conservation Act)**.**	Albuquerque Fire Department 888-8124 Bernalillo County Fire Department 761-4255
3.	Does your shop have methods to control spills? Yes No	**Keep all containers covered to prevent evaporation and spillage.** **Seal or increase the height of any floor drains to reduce the possibility of leaks/spills.** **Keep dikes or berms around process baths to contain process leaks/spills.**	Fire departments require spill containment and material segregation of reactive materials around storage areas to minimize the spread of any spilled material. Keep an emergency spill plan available and educate employees in its use. Training your employees also satisfies legal requirements. Pg 96
4.	Does your shop use the right absorbent? Yes No	Using the proper absorbent can save time, money and disposal costs**.**	Reference Manual Chapter 12, pg 99

❑ Guidelines For A (HMERP)

By preparing and filing your Hazardous Materials Emergency Response Plan with the **City of Albuquerque Fire Department,** your shop will be fulfilling part of the requirements under RCRA (Resource Conservation and Recovery Act) Hazardous Waste Reporting and under the Superfund Amendments and Reauthorization Act (SARA) Community Right to Know.

Below are some general spill control procedures:

1. **Isolate the spill area and limit entry, evacuate area if necessary**.
2. **Tend to any injured or contaminated personnel, seek help as necessary.**
3. **Notify the proper authorities if needed.**

Accidental spills happen fast and without warning so it is important to have spill control equipment available. Businesses have to determine what spill control method is best for them. Below are some methods/treatments a business can use for spill control; they are sorbents, treatment agents, or hazardous material vacuums for spills.

Sorbents - are materials that soak up liquids through absorption or adsorption. Sorbents come in particulate, sock, or pillow form.
Treatment Agents - are usually available for acid, caustic, or solvent spills. They come in dry powder form and are shaken, poured, or sprayed onto a spill. When used properly these agents will neutralize and solidify spills.
Hazardous Material Vacuums - vacuums can be used to clean up dry chemical spills or to collect and contain virtually any dry pollutants.

Spill Control Plans do not have to be elaborate. Consider the following scenario:

Mr. Spillalot, was thinking about the double decker chocolate cake he had waiting for him at home, as he pushed a 55 gallon drum of waste solvent around the shop he worked in, Axidentsrus Inc. Suddenly, Mr. Spillalot tripped! The spent solvent spilled, and slowly began creeping towards a drain on the floor. Fortunately Mr. Spillalot's boss, Mr. Doright always had written instructions. Mr. Spillalot looked around and spotted hanging on the wall a piece of paper that said ***Accidental Spill Control Plan*** *and it said:*

Spill Control Plan

Equipment Required

- ❑ Gloves
- ❑ Apron
- ❑ Goggles
- ❑ Bucket
- ❑ Mop
- ❑ Sponges
- ❑ Absorbent Material
- ❑ Neutralizing Material

Spill Response Procedures

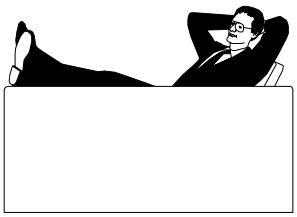
1. Put on Gloves, Goggles and an Apron
2. Contain the spill with a mop or absorbent materials available. Do not allow material to reach floor drains.
3. Check the appropriate material safety data sheet (MSDS) for special handling, ventilation, personal protection, or other pertinent data.
4. Clean up the spill as directed
5. Use the mop and sponge to clean the area thoroughly.
6. Package and label all contaminated absorbent materials for off-site disposal.
7. Notify the manager/owner that a spill has occured (see below).
8. Notify the appropriate government agency (see below).

Spill Response Personnel

Mr. Doright, Manager	555-5765/555-5655
name	pager/phone
Mr. Knowenough, Owner	555-5235/555-5755
name	pager/phone
Ms. Authorizer, City Waste	555-5895
name	pager/phone

Form adapted from "Code of Management Practice: Guide for Commercial Imaging:, the Silver Council, 1997, National Association of Photographic Manufacturers, Inc. Page 32.

Boy, thought Mr. Spillalot, I am sure glad my boss is efficient!!! After he finished following the instructions on the paper, he began thinking about the macaroni casserole his wife was making him for dinner.



Resource List

Associations

Auto Recyclers Association
Bill Proffer, Secretary..... 877-4856
Auto Service Association
Jackie Fox, President.....884-6905
New Mexico Motor Carriers.....884-6905
Vic Sheppard, Managing Director

City - Albuquerque:

Pollution Prevention Program - Non-Regulatory 873-7004

Hazardous Waste Program - Non-Regulatory 768-2600

Storm Water/Hydrology - Non-Regulatory 768-2650

Air Quality Assistance Program - Non-Regulatory 768-1964

Fire Marshal's Office (Hazmat information) 888-8124

Hazmat Emergency Response: 911
(Describe spill and material to dispatcher)

LEPC - Local Emergency Planning Committee 764-6353/6322
P.O. Box 2086, Albuquerque, NM 87103
Fire Department Dispatch (for LEPC after hours and on weekends) . . . 243-6601

Solid Waste Department/Disposal Division 836-8795

Southside Water Reclamation Plant
Pretreatment Unit - Weekdays 873-7004
Emergency - Weekends 873-6217

Poison Control 843-2551

Water & Wastewater Utility Dispatch 827-8250

State - New Mexico:

OSHA - On-Site Consultation - Non-Regulatory 1-800-222-6742
Technical Services Section 1-505-827-4231/4232
1190 St. Francis Dr., P.O. Box 26110, Santa Fe, NM 87502-6110

Local Albuquerque Office (non-consultation) 766-3411

Environment Department Region 1 1-505-841-9450

Emergency Response Commission 1-505-827-9300

Hazardous Waste Management Agency 1-505-827-4308

Hazardous Waste Technical Onsite Assistance 1-505-827-1558

Lead Poisoning Prevention Program 1-505-827-3709

New Mexico Industry Network Corporation (NM-INC) - Albuquerque 843-4250

Small Business Development Center (STARS system) - Albuquerque 224-4246

EPA Hotlines/Help Lines:

EPA Hotline 1-800-296-1996

EPA Public Information Center 1-800-887-6063

Mobile Sources Emissions 1-313-668-4338

Toxic Substance Control Act (TSCA)/Asbestos Information 1-202-554-1404

RCRA (Haz. Waste) Ombudsman 1-800-262-7937